



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/318,031	05/25/1999	PAUL MARKO	XM-0022	9813

7590 02/26/2007
BENMAN & COLLINS
2049 CENTURY PARK EAST
SUITE 2740
LOS ANGELES, CA 90067

EXAMINER

BEAMER, TEMICA M

ART UNIT	PAPER NUMBER
----------	--------------

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/318,031

Applicant(s)

MARKO ET AL.

Examiner

Temica M. Beamer

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/17/2006 have been fully considered but they are not persuasive. Applicant argues that none of the references teach a system adapted to selectively output signals from the first band or the second band. The examiner, however, respectfully disagrees.

Wang discloses a satellite broadcast receiver which is adapted to receive a pair of RF signals in a first frequency band and a second frequency band wherein the signals are later downconverted (col. 7, lines 44-54). This reads on the claimed limitations of means receiving signals in a first and second band and downconverting those signals.

Wang also discloses wherein a single multi-band downconverter to down convert a selected RF signal from a plurality of frequency bands. This reads on the claimed limitation of selectively outputting signals from the or second band.

Thus Wang solely teaches selectively outputting signals from the first band or the second band. Chang was only brought in to teach that bands can have more than one carrier or frequency.

Further, the applicant argues that Wang and Chang in combination fail to disclose the XM and CD bands as claimed. However, Wang teaches that the system is for use in a satellite system used to provide media services and it is well-known in the art that XM and CD are widely used in media broadcast systems and rearranging the system of Wang would only require routine skill in the art.

Therefore, based on the above remarks, the rejection to the claims stand rejected as set forth below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-10 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, U.S. Patent No. 5,940,750 in view of Chang et al (Chang), U.S. Patent No. 6,606,307.

Regarding claim 1, Wang discloses an interoperable receiver comprising first means for receiving signals in a first band, second means for downconverting said received signals in the first band, third means for receiving signals in a second band fourth means for downconverting signals in the second band and fifth means for selectively outputting signals from the first band of the second band (col. 7, lines 25-65).

Wang, however, fails to specifically disclose wherein the first and second bands include multiple carriers.

In a similar field of endeavor, Chang discloses techniques for utilization of bandwidth space assets. Chang further discloses wherein a satellite receiver provides a spectral band which is divided in smaller subbands (i.e., divided into multiple carriers) (col. 5, line 38-col. 6, line 25).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wang with the teachings of Chang for the purpose of increasing system capacity, thereby allowing more subscribers to simultaneously use the system.

Regarding claim 6, the combination of Wang and Chang discloses the invention of Claim 1 wherein the first and the third means is a radio frequency antenna (Wang, col. 4, lines 35-37).

Regarding claim 7, the combination of Wang and Chang discloses the invention of Claim 6 wherein the output of the antenna is input to a filter (Wang, col. 4, lines 18-26).

Regarding claim 8, the combination of Wang and Chang discloses the invention of Claim 7 wherein the filter is an image filter (Wang, col. 4, lines 18-26).

Regarding claim 9, the combination of Wang and Chang discloses the invention of Claim 7 wherein the filter is a selectivity filter (Wang, col. 4, lines 18-26).

Regarding claim 10, the combination of Wang and Chang discloses the invention of Claim 6 wherein the second means and the fourth means is a mixer (Wang, col. 7, lines 7-16).

Regarding claim 26, Wang discloses first means for receiving first and second ensembles, each ensemble having signals which are modulated and second means for processing said first and second ensembles to output said signals simultaneously (col. 7, lines 25-65).

Wang, however, fails to specifically disclose wherein the first and second ensembles include multiple carriers.

In a similar field of endeavor, Chang discloses techniques for utilization of bandwidth space assets. Chang further discloses wherein a satellite receiver provides a spectral band which is divided in smaller subbands (i.e., divided into multiple carriers) (col. 5, line 38-col. 6, line 25).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Wang with the teachings of Chang for the purpose of increasing system capacity, thereby allowing more subscribers to simultaneously use the system.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, Chang and further in view of well known prior art.

Regarding claims 4 and 5, the combination of Wang and Chang discloses the invention of Claim 1 as described above.

The combination, however, fails to disclose wherein the first kind is the X M band (claim 4) and the second kind of band is a CD band (claim 5).

The examiner, contends, however, that these kinds of bands are well known in the art, and that it would have been obvious to one of ordinary skill in the art to modify Wang and Chang with these types of bands since it was very well known in the art that these types of bands are used in the communications field.

5. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of well known prior art.

Regarding claim 20, Wang discloses an interoperable receiver comprising: first means for receiving signals in a first band; second means for downconverting said

received signals in the first band; third means for receiving signals in a second band; fourth means for downconverting signals in the second band; and control means for selectively outputting signals from the first or second bands.

Wang, however, fails to specifically disclose wherein the firstband is an XM band, and the second band is a CD band.

The examiner, contends, however, that these kinds of bands are well known in the art, and that it would have been obvious to one of ordinary skill in the art to modify Wang with these types of bands since it was very well known in the art that these types of bands are used in the communications field.

Regarding claim 21, the combination of Wang and well known prior art discloses the invention of Claim 20 further including means for simultaneously receiving first and second ensembles, said first ensemble including a first signal from a first source, a first signal from a second source and a first signal from a third source and said second ensemble including a second signal from said first source, a second signal from said second source and a second signal from said third source (Wang, col. 7, lines 25-35).

Regarding claim 22, the combination of Wang and well known prior art discloses the invention of Claim 21 further including means for selectively outputting signals transmitted within said first and said second ensembles (col. 7, lines 25-35).

6. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, Chang and Anderson et al (Anderson), U.S. Patent No. 5,940,750.

Regarding claim 11, the combination of Wang and Chang discloses the invention of Claim 10, and further discloses a self oscillating mixer (Wang, col. 7, lines 44-65).

The combination, however, fails to disclose wherein the mixer is driven by a voltage controlled oscillator.

Anderson discloses a mixer driven by a voltage controlled oscillator (abstract and col. 9, lines 35-52).

At the time of invention, it would have been obvious to a person having ordinary skill in the art to modify the combination of Wang and Chang with the teachings of Anderson, since as evidenced by Anderson, this type of oscillation is very well known in the art.

Regarding claim 12, the combination of Wang, Chang and Anderson discloses the invention of Claim 11 wherein the voltage controlled oscillator is driven by a synthesizer (e.g. via item 130) (Anderson, col. 9, lines 39-44).

Regarding claim 13, the combination of Wang, Chang and Anderson discloses the invention of Claim 12 wherein the fifth means inherently includes a controller as evidenced by the fact that the switch is capable of controlling which band is selected (Wang, col. 7, lines 44-65).

7. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, Chang, Anderson and well known prior art.

Regarding claim 14, the combination of Wang, Chang and Anderson discloses the invention of Claim 13 wherein the synthesizer is controlled by the controller to cause said receiver to selectively output signals received in the first or second band (Wang, col. 7, lines 43-65 and Anderson, abstract).

The combination, however, fails to specifically disclose wherein the first and second bands are XM and CD, respectively.

The examiner, contends, however, that these kinds of bands are well known in the art, and that it would have been obvious to one of ordinary skill in the art to modify the combination of Wang, Chang and Anderson with these types of bands since it was very well known in the art that these types of bands are used in the communications field.

Regarding claim 15, the combination of Wang, Chang and Anderson discloses the invention of Claim 13 further as described above. The combination, however, fails to specifically disclose means for digitizing the output of the mixer.

The examiner, however, contends that the process of digitizing is very well known in the art and that at the time of invention, it would have been obvious to a person of ordinary skill in the art to digitize the signal from the mixer to provide a clearer signal.

Regarding claim 16, the combination of Wang, Chang, Anderson and well known prior art discloses the invention of Claim 15 further including means for simultaneously receiving first and second ensembles, said first ensemble including a first signal from a first source, a first signal from a second source and a first signal from a third source and said second ensemble including a second signal from said first source, a second signal from said second source and a second signal from said third source (Wang, col. 7, lines 25-35).

Regarding claim 17, the combination of Wang, Chang, Anderson and well known prior art discloses the invention of Claim 16 further including means for selectively outputting signals transmitted within said first and said second ensembles (Wang, col. 7, lines 25-65).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, Chang, Anderson and Campanella et al (Campanella), U.S. Patent No. 6,115,366.

Regarding claim 18, the combination of Wang, Chang and Anderson discloses the invention of Claim 15.

The combination, however, fails to specifically disclose means for outputting an audio signal along with a data signal.

Campanella discloses means for outputting an audio signal along with a data signal (col. 1, lines 26-48).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Wang, Chang and Anderson with the teachings of Campanella for the purpose of having the capability to hear and see programming.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, Chang and Campanella et al (Campanella), U.S. Patent No. 6,115,366.

Regarding claim 19, the combination of Wang and Chang discloses the invention of Claim 1.

The combination, however, fails to disclose means for outputting an audio signal along with a data signal.

Campanella discloses means for outputting an audio signal along with a data signal (col. 1, lines 26-48).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Wang and Chang with the teachings of Campanella for the purpose of having the capability to hear and see programming.

10. Claims 23 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, well known prior art and Campanella.

Regarding claims 23 and 24, the combination of Wang and well known prior art discloses the invention of Claims 22 and 20 as described above.

The combination, however, fails to disclose means for outputting an audio signal along with a data signal.

Campanella discloses means for outputting an audio signal along with a data signal (col. 1, lines 26-48).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Wang and well known prior art with the teachings of Campanella for the purpose of having the capability to hear and see programming.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Beamer whose telephone number is (571)

Art Unit: 2617

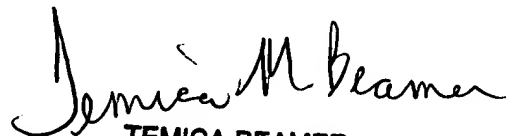
272-7797. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Temica M. Beamer
Primary Examiner
Art Unit 2617

tmb


TEMICA BEAMER
PRIMARY EXAMINER